

THE BENEFITS OF MARRIAGE ON THE HEALTH
OF MEN AGING IN PRISON

By

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Bachelor of Arts in Psychology,

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Denton, TX

2010

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 2013

THE BENEFITS OF MARRIAGE ON THE HEALTH OF
MEN AGING IN PRISON

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Title of Study: THE BENEFITS OF MARRIAGE ON THE MENTAL HEALTH OF
MEN AGING IN PRISON

Major Field: HUMAN DEVELOPMENT AND FAMILY SCIENCE

Abstract: For over a decade, there has been widespread debate concerning alternative practices and best methods for identifying and integrating low-cost health treatments and clinical interventions for an ever-growing older prison population. It is widely known that marriage provides many long-term health benefits including decreased susceptibility to communicable illness and chronic disease, reduced depressive affect, and improved longevity. Therefore, the purpose of the current study was to determine how marriage is associated with the self-reported physical health status of older male prisoners. This study involved the use of previously collected data from N = 261 male prisoners, aged 45 and older, incarcerated across 10 state-managed facilities in Oklahoma. Inmates completed basic background information reflective of criminal history, the Heartland Forgiveness Scale, Social Provisions Scale, Geriatric Depression Scale, and a 32 item self-report checklist. Descriptive statistics such as: means, standard deviations, and frequencies were used to analyze all relevant study variables. Chi square analyses were used to test prevalence of physical ailments and mental health symptoms across self-reported marital status categories. Correlations were computed for all variables used in this study. Finally, hierarchical regression analysis was used to examine the association of demographic characteristics, criminal history, social support, depressive affect and forgiveness types, as well the combination variable marriage and support to self-reported physical health among older prisoners. Four significant findings emerged from the current study. First, the prevalence of various self-reported health conditions among aging male prisoners does differ by marital status. Second, age is associated with more self-reported health conditions. Third, the psychosocial factors, forgiveness of others and depressive affect were associated with the prevalence of health conditions. Fourth, the combination of marriage and support is negatively associated with self-reported health conditions. Results of this study could be used to influence public policy to implement marital education programs and services in order to provide preventative care as well as improve health in prison.

Keywords: older inmates, marriage, health, prevention, forgiveness, social support

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CHAPTER I

INTRODUCTION

For over a decade, there has been widespread debate concerning alternative practices and best methods for identifying and integrating low-cost health treatments and clinical interventions for an ever-growing older prison population (Aday, 2003). Truth-in-sentencing and tough-on-crime legislation enacted since the 1980s such as the federal sentencing reform act, federal violent crime control, and the law enforcement act has contributed to an increasing number of male prisoners, age 55 and older (Haugebrook, Zgoba, Maschi, Morgen, & Brown, 2010; Rikard & Rosenberg, 2007). Older inmates currently account for 19% of the total inmate population (Stojkovic, 2008) and are anticipated to account for one-third of all prisoners in the United States by 2030 (ACLU, 2012). It costs an average of \$34,135 per year to house and care for one adult prisoner but twice that amount to house an inmate 55 years of age and older (ACLU, 2012). This high cost is due to the higher health care expenses accumulated by older male prisoners such as hiring skilled nurses, providing medications, diagnostic tests, and hospitalizations (Williams & Abraldes, 2007). In turn, the issue of sustaining affordable and quality health care for older prisoners has emerged as a public policy challenge.

Some policy experts contend that compassionate release programs represent the best solution to easing the cost and burden of caring for an ever-aging prison population (Clear, 2007). Compassionate release programs involve early parole and release of inmates who currently suffer from a terminal illness or require extensive end-of-life care (Rikard & Rosenberg, 2007). On the other hand, correctional healthcare advocates have suggested and argued that keeping prisoners healthy while in prison will help reduce dependence of care and allow inmates to serve full sentences without need for early release or parole (ACLU, 2012). Loeb and Steffensmeier (2006) provided empirical evidence that implementation of health promoting programs provide the older inmate with an improved sense of control over personal well-being. This is imperative to fostering self-management of behavioral conditions or circumstances that may negatively impact health during incarceration (Loeb & Steffensmeier, 2006). Thus, the development of preventive care services or clinical therapies aimed at enhancing how prisoners monitor and management their well-being are essential to individual health (Reimer, 2008).

The increase in the number of inmates aging in prison can also be partly attributed to advances in medical care (Rikard & Rosenberg, 2007). Some inmates enter prison healthy and robust, whereas other inmates pose serious communicable health risks due to previous inaccessibility of preventative health services, poor nutritional habits, and promiscuous lifestyle behaviors (Scnittker, Massoglia, & Uggen, 2011). These serious communicable health conditions put other inmates at risk as well as the general community. Rapid growth in the number of older prisoners housed within state managed correctional facilities has resulted in the transformation of correctional facilities into

“geriatric care centers” for long-term assistance and end-of-life care (Aday, 2003). Many state correctional systems were not designed or equipped to house or care for an older geriatric inmate population, nor have correctional healthcare practitioners been adequately trained to provide long-term or end-of-life care for geriatric patients (Patterson & Greifinger, 2007). Thus, preventative care is seen as the low-cost intervention that may assist with this issue. Preventative care has been proven to decrease the incidence of disease and disability (Williams & Abraldez, 2007).

The value of preventative care programming can be enhanced by providing empirical support for potential interventions that helps strengthen families and marriages (Ramaswamy & Freudenberg, 2007). It is widely known that marriage provides many long-term health benefits including decreased susceptibility to communicable illness and chronic disease, reduced depressive affect, and improved longevity (Koball, Moiduddin, Henderson, Goesling & Besculides, 2010; Waldron, Hughes, & Brooks, 1996). In addition, it is also known that the social support gained within a marriage can also improve health (Koball et al. 2010). Koball et al. (2010) further explains that the social support gained in a marriage contributes to marital partners engaging in behaviors that promote good health such as seeing a doctor for regular checkups and decreasing health related risk behaviors such as drinking and smoking. Yet, there has been a paucity of evidenced-based research that has been used to examine whether marital status during incarceration contributes to better health among older inmates.

It should also be noted that forgiveness of others is also important to the maintenance of a marriage. Practitioners have known for some time the importance of forgiveness in a marriage, but only recently has this phenomenon been addressed in the

empirical and clinical literatures (Fincham, Hall, & Beach, 2006). Research has also indicated that there is a link between forgiveness and health (Baskin & Enright, 2004). This process has been rarely studied specifically with the prisoner population but it has been indicated that interventions that promote forgiveness may provide a positive, therapeutic benefit to prisoners (Day, Gerace, Wilson, & Howells, 2008). Therefore, the purpose of the current study was to determine how marriage is associated with the self-reported physical health status of older male prisoners. One key aim involved examining how socio-demographic characteristics, criminal history, forgiveness of others, social support, and depressive affect are associated with self-reported health of men aging in prison. Results from this study have the potential of providing empirical support for the implementation of marital education and programming within correctional facilities that house a predominate number of older inmates.

CHAPTER II

REVIEW OF LITERATURE

Men, who are above the age of 50, represent the fastest growing population in prison (Loeb & Steffensmeier, 2006). Therefore, it has been posited that over the coming decades, state managed prison facilities will come to closely resemble assisted-living or long term facilities (ACLU, 2012). Mandatory sentences, increased amount of time spent in prison, as well as an increase in the amount of convictions when considered in conjunction with medical advances that are resulting in a longer life span for aging inmates have contributed to the proportional increase in the number of inmates aging behind bars (Rikard & Rosenberg, 2007). As the number of inmates in prison rise substantially so does the cost of health care for these inmates.

Prisoners represent the only constitutionally protected population with a right to free healthcare services (Aday, 2003; Wool, 2007). It takes an estimated \$70,000 a year to house and care for an inmate who reaches age 70 and greater (Aday, 2003). This is complicated by the fact that the stress of incarceration is believed to expedite age-associated health conditions such as prostate problems, hypertension, diabetes and cardiovascular disease at rates faster than those experienced by non-incarcerated persons

within the general population (Stojkovic, 2008). Aday labeled the above mentioned process as “accelerated aging” in which prisoners are physiologically 10-15 years older than non-incarcerated persons of the same age cohort. One reason that inmates age faster is that they develop chronic illness and disability at a younger age (Williams & Abraldez, 2007). It is estimated that 85% of older inmates have two or more major illnesses (Loeb & Steffensmeier, 2006). The three most prevalent physical ailments among older male inmates include asthma, diabetes, and hypertension. In fact, 40% of prisoners have at least one of these physical ailments or suffer from a combination (Stojkovic, 2007). Researchers and correctional policy makers have recently recommended health-promoting activities and interventions as effective strategies in keeping older prisoners healthy without compromising sentencing requirements or necessitating early compassionate release (Loeb & Steffensmeier, 2006). Examples of health promoting activities are conducting preventative health screenings, providing healthier diets, and facilitating physical activities such as gardening that are designed to keep older inmates active. Bishop and Merten (2011) reported physical activity lowered risk of comorbid health impairment by 44% among older male inmates. In addition to physical activity, they also reported that older inmates who maintain a positive perception of health and have greater mobility, are less likely to have comorbid health impairments (Bishop & Merten, 2012). Although health is commonly reported as an important indicator of well-being among prisoners, the associated influence of marital status has rarely been studied.

Conceptual Hypotheses on Marriage

Marriage is a well-known and identified source of health for individuals (Segrin & Flora, 2001). Marriage also provides protection from age-related diseases such as

diabetes, hypertension, and cardiac problems (Koball et al. 2010). Investigators have traditionally examined the benefits of marriage such as improved health and gaining support rather than focusing on the process or decision by healthy individuals to get married (Ali & Ajilore, 2011). Ample empirical evidence has been reported to support the physical and mental health benefits of marriage (Segrin & Flora, 2001; Koball et al. 2010; Ali & Ajilore, 2011).

Two theoretical hypotheses have emerged relative to understanding the associated link between marital status and health. First, some investigators have advanced the marital protection hypothesis. The marriage protection hypothesis posits that marriage alone improves health (Koball et al., 2010; Kiecolt-Glaser & Newton, 2001; Johnson, 2012). According to this perspective, individuals who are married and remain married have direct access to spousal support. Marriage is believed to serve as a source of support that helps decrease feelings of stress, reduce depressive symptoms, and improve sense of global well-being (Horwitz et al., 1996; Koball et al, 2010; Simon, 2002). A primary assumption of the marital protection hypothesis is that individuals receive greater emotional support compared to their unmarried counterparts. Emotional support acquired from a marital partner is posited as promoting positive health behaviors as well as stabilizing favorable health perceptions (Koball et al. 2010).

Second, other researchers have endorsed the marital selection hypothesis. Relative to this theoretical perspective, married individuals possess more resilient or predisposing characteristics such as physical prowess, adaptation and coping skills, or emotional intelligence that allows them to be healthier than unmarried individuals (Koball et al., 2010; Kiecolt-Glaser & Newton, 2001; Johnson, 2012). In other words,

resilient individuals are more likely to select into marriage and remain married despite negative life occurrences or situations because they possess underlying traits that support health and protect against morbidities (Koball et al. 2010; Waldron et al., 1996).

Marriage and Dispositional Forgiveness

The disposition to forgive has been noted as an essential element of marital stability (Lawler-Row & Preferi, 2006). Marital partners tend to engage in dispositional acts of forgiveness in order to maintain and strengthen marriage (Lawler-Row & Preferi, 2006; Thompson, Snyder, Hoffman, Michael, Rasmussen, Billings, Heinze, Neufield, Shorey, Roberts, Roberts, 2005). Thompson et al. (2005) defined dispositional forgiveness as a person's tendency to seek forgiveness and to be forgiven by other people (Thompson et al., 2005). Individuals who rank high in dispositional forgiveness tend to exhibit fewer depressive symptoms and maintain more favorable self-reported health perceptions (Krause & Ellison, 2003; Lawler-Row & Preferi, 2006). Thompson et al. (2005) conceptualized dispositional forgiveness as a triangular process involving the self, others, and situation (Thompson et al., 2005). First, Thompson et al. (2005) defined forgiveness of self as the acceptance of one's role or responsibility in engaging in an offending behavioral act. Forgiveness of self essentially entails the replacement of ruminating negative thoughts, feelings, and behaviors with the identification of positive thoughts, feelings, and behaviors about the self.

Thompson et al. (2005) conceptualized forgiveness of others as the act of seeking as well as requesting acknowledgement of one's role or responsibility in a behavioral transgression or against another person. McCullough, Worthington, and Rachal (1997) reported that forgiveness of others facilitates empathy for the transgression and allows

victims of a transgression to better recognize whether the offender is authentically experiencing guilt and remorse for their actions. In effect, this helps ease feelings of estrangement and fosters a sense of goodwill between transgressor and victim despite a harmful or violent act (McCullough, Worthington, & Rachal, 1997).

Thompson et al. (2005) noted that the disposition to forgive is often contingent upon the contextual situation in which it transpires. If forgiveness occurs within a supportive environment and is encouraged, it will have a more positive effect on the well-being of the transgressor (Thompson et al., 2005). However, if forgiveness is discouraged or symbolized as a sign of weakness within an environment, it could potentially increase interpersonal conflict with an offended victim and hinder perceived well-being of a transgressor (McFarland, Smith, Toussaint, & Thomas, 2012). Thus, forgiveness when taken as a whole has the ability to mend broken relationships as well as positively impact one's well-being.

Marriage, Forgiveness, & Health in Prison

Mumola (2000) reported that just over half of all state and federal prisoners are never married, whereas 22.2% are married, 25.2% are separated or divorced, and 1.8% are widowed. Oftentimes, the stress of incarceration can transcend beyond prison walls and directly affect the satisfaction and sustainability of marriage (Einhorn, Williams, Stanley, Wunderlin, Markman, & Eason, 2008). Investigators have suggested that marital termination may be further accelerated if the offender has been incarcerated multiple times or convicted of a violent or heinous criminal act (Huebner, 2007).

Lopoo and Western (2005) noted three reasons why incarcerated men are at-risk for marital termination. First, separation from normative society reduces the opportunity

to form relationships as well as frequency of interaction with significant others which in turn decreases marital communication and overall quality of the relationship. Second, stigma surrounding the type of crime or circumstances and conditions of prison sentencing may repel potential romantic or marital partners. Consequently, this creates difficulty in attracting a romantic partner or achieving marital union (Apel et al., 2010). Third, prison removes access to formal job training and paid employment. This contributes to a lack of stable income and results in economic disadvantage (e.g., homelessness, unemployment) upon parole and release (Lopoo & Western, 2005). Investigators also believe that lack of economic achievement and stability becomes problematic for marital stability, especially when a spousal partner or dependent children need financial support in the absence of available assistance. This may further complicate feelings of ambivalence between marital partners that may already be strained by a transgression that resulted in the incarceration of one partner.

Forgiveness may represent one alternative practice that significantly improves the health of men aging in prison (Bishop & Merten, in press). The act of seeking and granting forgiveness tends to increase with age (Girard & Mullet, 1997), yet engagement in forgiveness decreases among men who age in prison (Allen, Phillips, Roff, Cavanaugh, & Day, 2008). Therefore, this process represents a paradoxical event in which the tendency to seek forgiveness while in prison increases with age yet actual engagement in particular acts of forgiveness may decrease. One explanation for this paradox is that imprisonment represents a life-altering event that significantly reduces probability of entering into or sustaining enduring social ties including marital unions (Apel, Blokland, Nieuwbeerta, & van Schellen, 2010). The type of crime hypothesis can be offered as

another reason to explain this paradox. This hypothesis posits that persons who are convicted of nonviolent crimes are more likely to consider themselves as religious and engage in acts of forgiveness (Fernander, Wilson, Staton, & Leukefeld, 2005).

Forgiveness is a central tenet of most major religions (Day, Gerace, Wilson, & Howells, 2008). Thus, it can be said that persons convicted of nonviolent crimes are more likely to benefit from forgiveness therapies compared to inmates who are convicted of violent crimes (Bishop, Randall, & Merten, In-Press; Randall & Bishop, 2012).

Therefore, it is plausible to posit that being married while incarcerated may enhance engagement in forgiveness and thus improve health. In the aftermath of a transgression, romantic partners who are more forgiving toward each other tend to feel healthier than those who do not actively seek or engage in forgiveness with others (Thompson et al., 2005). This appears to hold true for older inmates. Researchers have reported empirical evidence of a forgiveness-health link in later life (Lawler-Row & Preferi, 2006; Krause & Ellison, 2003).

In particular, forgiveness has been reported to reduce the impact of socio-emotional vulnerabilities including loneliness, depressive affect, and spiritual attachment on self-reported health outcomes (Randall & Bishop, 2012). Furthermore, Randall and Bishop (2012) proposed that social support is an underlying element of protection against vulnerability that may enhance effectiveness of forgiveness in producing positive health-related outcomes. It is plausible that older male prisoners who remain married are advantaged relative to forgiveness and health. Therefore, further evidence of a “marital advantage” in the forgiveness behavior and self-reported health outcomes of older male prisoners is warranted.

Study Purpose

This study had a two-fold purpose. First, this study was used to examine whether marital status among older male prisoners enhances or impairs the presence of self-reported health conditions. Second, this study was used to determine whether married, formerly married, and divorced older prisoners who possess greater social support and have the ability to forgive others report more favorable health perceptions. Thus, the following hypotheses were examined.

H1: Marital status will be associated with prevalence of self-reported health problems of older male prisoners. It is hypothesized that older male prison inmates who are married will report significantly less self-reported health problems than older prisoners who self-identify as being formerly (i.e., divorce, separate, widowed), or never married.

H2: Being married and possessing greater social support will be associated with better self-reported health. It is hypothesized that marriage and the interaction of possession of greater social provisions, will be associated with significantly less self-reported health problems.

H3: Possessing the ability to forgive others will be associated with better self-reported health. It is hypothesized that having a greater disposition to forgive, will be associated with less self-reported health problems.

If the findings indicate that there is indeed a relation between marital status and health, results from this study could support the provision of low-cost clinical based programming and services for married or non-married older prisoners. Such empirical support may be used to strengthen marital relations through therapeutic services.

CHAPTER III

METHODOLOGY

Participants

This study involved the use of previously collected data from N = 261 male prisoners, aged 45 and older, incarcerated across 10 state-managed facilities in Oklahoma. Inmates age 45 and older were designated as older offenders in this study. This was done to remain consistent with sampling procedures conducted during the original pilot study. Data collection was conducted in the summer of 2006. At the time, study participants were conveniently sampled from the Oklahoma Department of Corrections database. Inmates who were housed within medical or psychiatric units, under disciplinary action or solitary confinement, or serving time on death row were excluded from participation.

Sample recruitment. Inmates were notified about the pilot study through the use of an announcement that was approved by the Oklahoma State University Institutional Review Board (IRB). The announcement was given to prison wardens, deputy wardens, unit directors, and all other prison administrators for distribution.

Procedures

Data collection sessions were scheduled on predetermined dates proposed by the research team and approved by prison administration. Interested participants were instructed to voluntarily meet members of the research team in a designated prison visitation area. Prior to beginning filling out the questionnaires members of the research team read aloud an approved university IRB informed consent form to the selected group of participants. When the reading was completed, all participants were asked to read the information again before signing the university approved IRB informed consent form. After completing the form, participants were asked to spread out and not sit next to or across from one another in order to ensure privacy. A copy of a study survey and pencil were then provided to each participant. It is important to note that a prison administrator (e.g., deputy warden, unit manager) pre-identified participants who were unable to read as a result of illiteracy or poor vision. These participants were given a one-on-one interview in a private area of the visitation room away from the other participants. All participants were debriefed using a university IRB approved debriefing statement. This debriefing consisted of a one-to-one interview with each individual participant and consisted of a three sentence statement that identified prison staff (i.e., unit manager, physician, nurse) or other correctional workers/volunteers (i.e., case manager/social worker, pastoral minister) to whom the participant should seek in the event of negative cognitive rumination, thoughts, or feelings.

Measures

Sociodemographics. Demographics used in this study included age, race, education, and marital status. Participants were asked to indicate their current age, race/ethnicity, education, and marital status. Age was used as a continuous variable.

Race/ethnicity was recoded and used as dichotomous variable where 0 = White and 1 = Non-white. Educational attainment reflected a continuous variable where 1 = Less than a high school diploma, 2 = High school diploma, and 3 = College graduate. Marital status was recoded into a categorical variable in which 1 = Never married, 2 = Formerly married, and 3 = Married.

Criminal history. Data reflective of criminal history used in this study as control variables included: type of crime committed, recidivism, and time served. For purposes of this study, type of crime committed was coded into a variable where 0 = Non-violent (e.g., theft, drug offense); 1 = Violent (e.g., rape, murder). Recidivism was assessed with a single-item indicator regarding whether individual participants had ever been in prison previously. Participant responses was coded as 0 = No; 1 = Yes. In this study, data reflective of criminal history will be used as a control variable because they were proven to be significant factors relative to the study of inmates in previous studies.

Forgiveness. Forgiveness was assessed with the Heartland Forgiveness Scale also known as the HFS (Thompson et al., 2005). The HFS is an 18-item self-report measure of dispositional forgiveness comprised of three subscales: self, others and situations. One of the questions included on the self scale was “Although I feel badly at first when I mess up, over time I can give myself some slack.” An example of the others scale is “With time I am understanding of others for the mistakes they’ve made.” Finally, an example of the situations scale is “Eventually, I let go of negative thoughts and bad circumstances that are beyond anyone’s control.” Items were scored on a 7-point scale (1 = *Almost always false of me* to 7 = *Almost always true of me*). Thompson et al. (2005) originally reported the internal consistency for each of the three subscales was acceptable (self, $\alpha =$

.67; other, $\alpha = .79$; and situations, $\alpha = .62$). Thompson et al. (2005) reported that the HFS has a clear and consistent factor structure to support the assertion that single attributes of forgiveness including self, others, and situation can be assessed, as well as an overarching construct representing disposition to grant forgiveness. The HFS scale has also demonstrated desirable convergent validity (Thompson et al., 2005). For purposes of this study, I elected to use the forgiveness of others score to be indicative of disposition to grant forgiveness. A higher score reflected greater disposition to grant forgiveness to other whereas a lower score represented lower disposition to grant forgiveness to others. Cronbach's alpha across the full 18-item scale within this study was .84.

Social Support. The Social Provisions Scale (Cutrona & Russel, 1987) was used to examine degree of social provisions reported by participants. This scale contains 24 items divided into 6 categories (provisions) including: attachment (e.g., "I have close relationships that provide me with a sense of emotional security and well-being"), social integration (e.g., "There are people who enjoy the same social activities I do"), reassurance of worth (e.g., "There are people who admire my talents and abilities"), reliable alliance (e.g., "There are people I can depend on to help me if I really need it"), guidance (e.g. "There is someone I could talk to about important decisions in my life"), and opportunity for nurturance (e.g. "I feel personally responsible for the well being of another person"). Cutrona and Russell (1987) reported the scale to have strong internal consistency reliability ($\alpha=.93$). Participants were asked to rate their agreement on a 4-point Likert scale (1 = strongly disagree; 4 = strongly agree). A high score is reflective of high social provisions. A low score is indicative of low social provisions.

Depressive affect. The 10-item form of the Geriatric Depression Scale (Yesavage & Brink, 1983) was used to determine depressive affect. The Geriatric Depression Scale (GDS) is one of the most widely used self-report measures that was designed specifically for elderly people (Pedraza, Dotson, Willis, Graff-Radford & Lucas, 2009). Results from this study concluded that this scale correlated well with clinical diagnoses of depression. The GDS has a good internal consistency as well as good test retest reliability (Yesavage & Brink, 1983). Yesavage and Brink (1983) provided evidence for the validity of the Geriatric Depression Scale. Results from this study indicated that subjects who were classified as normal scored significantly lower than those who were severely depressed ($p < .001$). In order to demonstrate that The Geriatric Depression Scale has concurrent validity in a sample of young adults, Ferraro and Chelminski (1996) conducted correlation analyses between the Geriatric Depression Scale and the Beck Depression Inventory. Results from this analysis revealed a Pearson correlation coefficient of $r = .84$ ($p < .01$). For purposes of this study, a 10-item short-form of the GDS will be used. Chattat, Ellena, Cucinotta, Svaorani, & Mucciarelli (2001) reported the scale to have good internal consistency reliability ($\alpha = .76$). Investigators have reported average scores on the 10-item version to range from, $M = 2.9$ for non-depressed older populations to $M = 5.3$ for older persons with high depressive symptoms (Chattat, Ellena, Cucinotta, Svaorani, & Mucciarelli, 2001). The 10-item GDS is a self-report scale in which depressive symptoms are endorsed as 1 = yes has symptom; 0 = no does not have symptom. Symptoms include mood states such as (sadness, hopelessness, crying, etc.). A high summary score represents a high degree of depressive symptoms and a low summary score indicates a low degree of depressive symptoms. Sample items included

“Do you often feel helpless?” and “Do you feel happy most of the time?” For purposes of this study, individual dichotomous items reflecting the 10 depressive symptoms will be used to consider recent depressive symptomology (e.g., sadness, feelings of worthlessness, crying) experienced by participants. Means were computed from the global depression score and is entitled Depression which was calculated by averaging the number of items endorsed. Internal consistency of this scale used in this study was $\alpha = .85$.

Self-reported health. A summary score from a 32-item self report checklist will be computed. Participants were asked to check all health conditions they experienced in the last 1-2 years (e.g., cancer, heart disease, diabetes, hepatitis, etc.), or were currently experiencing using a dichotomous response (1 = Yes; 0 = No). For purposes of this study, the 15 most prevalent self-reported health conditions were reported and a summary score was obtained by calculating the total number of the items endorsed.

Plan of Analysis

IBM/SPSS (19.0) was used to analyze data. Descriptive statistics such as means, standard deviations, and frequencies were computed for all relevant study variables. Chi square analyses were used to test prevalence of physical ailments and mental health symptoms across self-reported marital status categories. A correlation analysis was used to analyze the association of all variables included in the study. Correlations were computed for all variables used in this study. Finally, hierarchical regression analysis was used to examine the association of demographic characteristics, criminal history, social support, depressive affect, and forgiveness types, as well the interaction variable marriage and support to self-reported physical health among older prisoners.

CHAPTER IV

RESULTS

Frequencies, percentages, means, and standard deviations of the participants' demographics are reported in Table 1. A majority of the 261 inmates residing in Oklahoma prisons used in this study were formerly married (n=145). The other two groups were married (n=76) and never married (n=40). Among the participants, 37.5% were considered to be middle aged (45-54) and 62.5 % were in old age (55+). In regards to race/ethnicity, most of the population (62.5%) identified themselves as Caucasian. In comparison to the general inmate population, this population was moderately well educated with 68.7% having attained a high school diploma. About half of the participants indicated that they had been previously incarcerated (47.1%). Most of the sample participants committed violent crimes (66.3%) and were sentenced 75 years to life (37.5%).

Table 1

Frequencies, Means, and Standard Deviations of Sample Demographics

| Variables | Frequency | Percentage | Mean | S.D. |
|-------------------------|-----------|------------|-------|------|
| Age | | | 57.59 | 8.41 |
| Middle Aged | 98 | 37.5% | | |
| Old Age | 163 | 62.5% | | |
| Race | | | | |
| White/Caucasian | 163 | 62.5% | | |
| African American | 56 | 21.5% | | |
| American Indian | 22 | 8.4% | | |
| Hispanic/Latino | 12 | 4.6% | | |
| Other | 7 | 2.7% | | |
| Marital Status | | | | |
| Married | 76 | 29.1% | | |
| Formerly Married | 145 | 55.6% | | |
| Never Married | 40 | 15.3% | | |
| Education | | | | |
| Less than High School | 81 | 31.0% | | |
| High School Graduate | 145 | 55.6% | | |
| College Graduate | 76 | 29.1% | | |
| Previously Incarcerated | 123 | 47.1% | | |
| Type of Crime | | | | |
| Violent | 173 | 66.3% | | |
| Non-Violent | 88 | 33.7% | | |

Chi-square analyses were run to test for differences between groups. Marital status was divided into three groups: married (n=76), formerly married (n=145), and never married (n=40). Chi square analyses were conducted to test for differences within the demographics. In general, married inmates were significantly older, more educated, and had lower recidivism, in comparison to those who had been never married ($p < .05$). Specifically, married inmates were significantly different from the never married population in regards to age χ^2 (N = 261, df = 1) = 6.01, $p = .01$, education χ^2 (N = 261, df = 2) = 10.63, $p = .01$, and recidivism χ^2 (N = 261, df = 1) = 4.20, $p = .04$. Formerly married inmates were significantly different from the never married population in regards to age χ^2 (N = 261, df = 1) = 4.78, $p = .03$. Significant differences were also found between married inmates and formerly married inmates in regards to education χ^2 (N = 261, df = 2) = 7.30, $p = .03$. Also, chi square analyses were used to test for differences between marital status categories in regards to health. Specifically, married inmates were significantly different from never married inmates in regards to having hepatitis χ^2 (N = 261, df = 1) = 4.14, $p = .04$, prostate problems χ^2 (N = 261, df = 1) = 5.55, $p = .02$, and asthma χ^2 (N = 261, df = 1) = 5.52, $p = .09$. Formerly married inmates were significantly different from never married inmates in regards to having hepatitis χ^2 (N = 261, df = 1) = 4.32, $p = .04$, prostate problems χ^2 (N = 261, df = 1) = 4.59, $p = .03$, hernia χ^2 (N = 261, df = 1) = 4.19, $p = .04$ and asthma χ^2 (N = 261, df = 1) = 5.32, $p = .021$. Married and formerly married inmates were significantly different in regards to emphysema χ^2 (N = 261, df = 1) = 6.11, $p = .01$. Data is summarized in Table 2.

Table 2

Inmate Characteristics and Health Conditions by Marital Status

| | Married (n=76) | | Formerly Married (n=145) | | Never Married (n=40) | |
|---------------------------------------|-------------------|-------|-----------------------------|-------|-------------------------|-------|
| | % | M | % | M | % | M |
| Inmate Characteristics | | | | | | |
| Middle Age (45-54) ^{*,***} | 31.6 | | 35.9 | | 55.0 | |
| Old Age (55+) ^{*,***} | 68.4 | | 64.1 | | 45.0 | |
| Less than High School ^{*,**} | 19.7 | | 33.6 | | 45.0 | |
| High School Graduate | 59.2 | | 55.9 | | 50.0 | |
| College Graduate ^{*,**} | 21.1 | | 10.5 | | 5.0 | |
| Previously Incarcerated [*] | 41.3 | | 47.2 | | 61.5 | |
| Violent crime | 68.4 | | 66.2 | | 62.5 | |
| Inmate Emotional Health | | | | | | |
| Social support | | 69.51 | | 68.53 | | 65.91 |
| Forgiveness of Others | | 30.71 | | 31.18 | | 29.11 |
| Depressive Symptoms | | 3.77 | | 3.90 | | 3.42 |
| Self-Reported Health Problems | | | | | | |
| High Blood Pressure | 51.3 | | 54.2 | | 53.8 | |
| High Blood Cholesterol | 27.6 | | 36.8 | | 35.9 | |
| Arthritis/Rheumatism | 28.9 | | 29.2 | | 23.1 | |
| Tuberculosis | -- | | 6.3 | | 7.0 | |
| Heart Attack | 10.5 | | 19.4 | | 20.5 | |
| Diabetes | 19.7 | | 20.8 | | 15.4 | |
| Hepatitis ^{*,***} | 9.2 | | 10.4 | | 23.1 | |
| Hernia ^{***} | 11.8 | | 14.6 | | 2.6 | |
| Prostate Problem ^{*,***} | 22.4 | | 19.4 | | 5.1 | |
| Ulcer | 10.5 | | 12.5 | | 10.3 | |
| Asthma ^{*,***} | 9.2 | | 11.1 | | 25.6 | |
| Urinary tract problem | 15.8 | | 12.5 | | 10.3 | |
| Circulatory problems | 9.2 | | 11.8 | | 7.7 | |
| Cancer | 7.9 | | 6.3 | | 12.8 | |
| Emphysema ^{**} | 1.3 | | 10.4 | | 7.7 | |

Note. Dashed line represents no percentage value.

*Significant difference between married and never married ($p \leq .05$)

**Significant difference between married and formerly married ($p \leq .05$)

***Significant difference between formerly married and never married ($p \leq .05$)

Bivariate correlations, means, and standard deviations of primary study variables are summarized in Table 3. Correlations among study variables ranged from $-.46$ to $.40$. Hierarchical regression analyses were conducted in order to determine the relation between demographic variables, forgiveness of others, depressive affect, social support, and the combination of social support and marriage with self-reported problems (Table 4). The demographic characteristics such as age, education, marital status, type of crime committed, and previously incarcerated were included in Model 1. Results indicates that there was a significant positive association between age and self-reported health conditions ($B = .07, p < .001$). Therefore, greater age was associated with greater self-reported health problems.

Relative to the second model, covarying influences including social support, forgiveness of others, and depressive affect were tested while controlling for demographic variables. Results of the hierarchical regression analysis indicate that marital status is negatively associated with self-reported health conditions ($B = -.44, p < .05$). Age maintained a positive association with health ($B = .08, p < .001$). Furthermore, forgiveness of others was negatively associated with health ($B = -.05, p < .05$) but depressive affect was positively associated with health ($B = .19, p < .001$). In comparison to Model 1, Model 2 improved significantly, $F\Delta(3, 195) = 10.16, p < .000$.

Model 3 maintained a significant improvement over Model 2, $F\Delta(1, 194) = 33.64, p < .000$. In this model, the addition of an interaction terms (Marital Status X Support) was tested while controlling for demographics, social support, forgiveness of others, and depressive affect. Age ($B = .05, p < .01$), marital status ($B = 7.36, p < .001$), education ($B = .41, p < .01$), and type of

crime ($B=.79, p<.01$) all had a significant positive association with self-reported health conditions. These results indicate that being currently married is associated with greater self-reported health conditions. Also, greater education is associated with greater self-reported health conditions. It was also found that being a violent offender is associated with greater self-reported health problems. After controlling for demographic variables, forgiveness of others ($B= -.06; p<.01$) maintained a negative association with health. Thus, the ability to forgive others is associated with less self-reported health problems. Furthermore, social support had a positive association with self-reported health conditions ($B= .24, p<.001$), which can be interpreted as having more social support is associated with greater self-reported health problems. Finally, Marital Status X Support was significantly and negatively ($B= -.11; p<.001$) associated with lower self-reported health problems. This finding indicates that when social support is taken into consideration in the context of being married, the result is a lower prevalence of self-reported health problems. Overall, within this study, 31% of the variation in self-reported health was explained by demographic characteristics (e.g., age, education), psychosocial influences (e.g., social support), and the interaction between marital status and support.

Table 3

Zero-Order Correlations and Descriptive Statistics for Study Variables (N=261)

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------------------------|-------|--------|---------|------|---------|------|--------|--------|------|
| 1. Age | -- | | | | | | | | |
| 2. Marital Status | .14* | -- | | | | | | | |
| 3. Type of Crime | .08 | .04 | -- | | | | | | |
| 4. Previously Incarcerated | .00 | -.12 | -.33*** | -- | | | | | |
| 5. Forgiveness of Others | .19** | .05 | .07 | -.04 | -- | | | | |
| 6. Education | -.03 | .22*** | .01 | -.06 | -.12 | -- | | | |
| 7. Social Provisions Scale | .05 | .09 | .00 | -.08 | .40*** | .04 | -- | | |
| 8. Geriatric Depression Scale | -.10 | .03 | .05 | .00 | -.36*** | -.12 | -.46** | -- | |
| 9. Self-Reported Health | .16** | -.05 | .17*** | -.10 | -.25*** | .12 | -.20** | .32*** | -- |
| Mean | .62 | 2.14 | .66 | .48 | 30.74 | 1.81 | 68.46 | 3.79 | 3.96 |
| SD | .49 | .65 | .47 | .50 | 7.67 | .64 | 11.79 | 3.09 | 3.48 |

* $p < .05$. ** $p < .01$. *** $p < .001$. (two-tailed tests)

Table 4.

Hierarchical Regression Analysis of Variables Predicting Self-Reported Health Problems

| Variables | Model 1 | | | Model 2 | | | Model 3 | | |
|--------------------------------|---------|-----|---------|----------|-----|---------|----------|------|----------|
| | B | SE | T-Value | B | SE | T-Value | B | SE | T-Value |
| Marital Status | .07 | .02 | -1.77 | -.44 | .22 | -2.03* | 7.36 | 1.36 | 5.42*** |
| Age | .07 | .02 | 3.70*** | .08 | .02 | 4.71*** | .05 | .02 | 2.78*** |
| Education | .28 | .18 | 1.58 | .30 | .17 | 1.76 | .41 | .16 | 2.61** |
| Previously Incarcerated | -.21 | .31 | -.69 | -.23 | .29 | -.80 | -.21 | .27 | -.80 |
| Type of Crime | .58 | .33 | 1.78 | .53 | .31 | 1.74 | .79 | .29 | 2.75** |
| Social Support | | | | .00 | .01 | .27 | .24 | .04 | 5.63*** |
| Forgiveness of Others | | | | -.05 | .02 | -2.23* | -.06 | .02 | -3.01** |
| Depressive Affect | | | | .19 | .05 | 3.67*** | .01 | .06 | .15 |
| Marriage x Support | | | | | | | -.11 | .02 | -5.80*** |
| <i>F</i> Δ | 4.65*** | | | 10.16*** | | | 33.64*** | | |
| <i>R</i> ² | .11 | | | .23 | | | .34 | | |
| Adjusted <i>R</i> ² | .04 | | | .16 | | | .20 | | |

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

CHAPTER V

DISCUSSION

This study adds to the research literature regarding the link between marriage and health among older male inmates. Three significant findings emerged from the current study. First, marriage is associated with more self-reported health problems. Second, the combination of marriage and support is negatively associated with self-reported health problems. Third, forgiveness of others was negatively associated with the prevalence of self-reported health problems.

A chi square analysis revealed significant differences between the marital groups: married, never married, and formerly married. In general, married inmates were significantly older, more educated, and had a lower recidivism rate, in comparison to those who were never married ($p \leq .05$). There were also significant differences between those who were formerly married and never married in middle age and old age ($p \leq .05$). Also, differences between marital statuses in regards to health were also tested. Significant differences between marital statuses were found in the following self-reported

health problems ($p \leq .05$): tuberculosis, hepatitis, hernia, prostate problems, asthma, and emphysema. Hierarchical regression analyses indicated that married inmates generally reported more self-reported health problems. Therefore, hypothesis 1 was not supported, which states that being married will be associated with less self-reported health problems.

One reason that may have contributed to this finding is that marital quality was not included in any of the measures. Marital stress is a key variable affecting marital quality for older individuals because the marriage becomes more important as we age (Carstensen, 1992). Umberson, Williams, Powers, Liu, and Needham (2006) found that marital distress further accelerates the natural decline in self-reported health as we age, which is consistent with the results of the current study. Thus, marital quality becomes increasingly more important as we age. It is possible that the negative stress that occurs as a result of the marriage negatively affects health because this stress is more prominent in their daily lives. This relationship can also be studied inversely, meaning that self-reported health problems that were present before getting married can affect marital quality. But, it is important to note that results obtained from the regression analysis which indicate that marriage is associated with more self-reported health problems do not match up with causal relationship inferences that indicate that marriage is associated with less self-reported health problems. This can be attributed to the fact that correlations only indicate the relation between variables but analyses based on regression account for the variance caused by other variables. Because we did not develop a measure to assess health before marriage, it cannot be determined if marriage alone improves health or whether healthy people are more likely to get married.

The current study provided evidence to support hypothesis 2 that being married and possessing greater social support will be associated with better self-reported health problems. Previous findings indicate that being married alone does not provide health benefits, it is the social support gained within a marriage that provides the health benefit (Holt-Lunstad, Birmingham, & Jones, 2008). Thus, being married can provide one with a health benefit whereas, being married and possessing social support can provide even more health benefits than marriage alone. Koball et al. (2010) posits that the support obtained from a spouse often encourages one to engage in more health promoting behaviors and reduce health related risk factors. Also, the social support that is a by-product of a healthy marriage may also help to reduce future criminal acts (Lopoo & Western, 2005). Thus, future research should not only examine the impact being married has on health; it should also examine the presence of social support as a mediating or moderating variable that links marriage and health.

Relative to forgiveness of others, a significant association was found with prevalence of self-reported health problems. Forgiveness of others was negatively associated with self-reported health problems indicating that a greater ability to forgive others often leads to less self-reported health problems. Thus, the results supported H3. This finding could be attributed to finding that adults who forgive exhibited more healthy behaviors (Lawler-Row & Piferi, 2006).

The finding that age is associated with the prevalence of more self-reported health problems is congruent with previous research in this area. When trying to understand how people change, gerontologists often use age as an analytical tool (Rikard & Rosenberg, 2007). An age effect is change that occurs simply by getting older. Some of these

normative changes include the graying of the hair, immune system deterioration, and the development of chronic health conditions. Still, further examination is warranted relative to if in fact the previously mentioned age effect can be applied to those aging in prison.

Limitations

Although results from this study add to the research literature regarding the benefits of marriage on the health of men aging in prison, several limitations should be noted. First, this examination utilized a cross sectional design. Findings obtained using this design merely implies correlation not causation. A longitudinal design may be more effective in order to better control for variables and generalize over time. Studies based on longitudinal data can also provide stronger evidence for the presence of a causal relationship. Therefore, results obtained in this study should not be used to imply cause and effect by suggesting that marital status contributes to an increase in self-reported health problems for men aging in prison. Future studies on health should utilize a longitudinal design.

A second limitation of this study involved multicollinearity. Multicollinearity persists when two or more predictor variables share similar conceptual and functional attributes or may be highly correlated. In effect, this can result in some predictors having a significant association with the outcome variable when they should otherwise not be significant (Cohen, Cohen, West, & Aiken, 2003). Relative to this study, use of an interaction term involving marital status X social support may have had an impact on the validity and reliability of results involving these selected predictor variables. Preliminary results obtained in this study specifically indicate a significant association in the interaction between marital status by social support on self-reported health problems.

However, such results should be interpreted with caution. Further inquiry of results should include post-hoc analyses involving statistical techniques such as mean-centering, methodologies proposed by Aiken and West (1991), or some other diagnostic .

Similar to previous research that utilizes data obtained from inmates, the study used convenience sampling, which reflects a third limitation in the results of this study. Because this study used convenience sampling, results cannot be generalized to other populations such as female inmates, juveniles, or inmates who reside in segregated housing. Also, inmates who participated in this study may be more educated than the general population. Random sampling may have resulted in a more representative sample (Bishop, Randall, & Merten, in press). Being that all of the participants were sampled from one state, this study may not be generalizable to other inmates who reside in other states. Future research done on this population should utilize random sampling over the more common convenience sampling.

Fourth, the assessment of marital status did not account for marital quality. Kiecolt-Glaser & Newton (2001) provide evidence that self reported health is associated with marital quality. Having high levels of marital satisfaction has been found to protect couples from experiencing distress from outside stressors (Koball et al, 2010). Marital quality may be the key factor in providing evidence to support the link between marriage and health. Results may reflect underlying conditions of marital quality rather than the associated influence of only marital status on self-reported health. Thus, future research should assess for marital quality when doing any research using marital status as an independent variable.

Fifth, being that health is a complex phenomenon, it requires the use of more objective assessments such as physical checkups. The reliance of self-report measures may have introduced some biases inherent in the recording of data. Due to lack of literacy or suffering from debilitating illnesses, inmates may not have fully understood what was being asked in the questionnaire. Also, inmates may suffer from an illness but be too ashamed to document or seek medical attention. Study questions that addressed emotions such as depression and loneliness may not have been reported correctly due to the stigma associated with exhibiting such feelings in prison (Bishop & Merten, 2011). Another bias in using a self-report measure on health is that the level of health literacy can affect the accuracy of the measure. Being that most inmates come from underprivileged backgrounds, many of them are not aware of the correct terminology or symptoms of some health problems. Therefore, future research in this area needs to assess for health literacy prior to the administration of a measure.

Future Directions

Despite limitations of the current study, findings obtained from this study provide support for the importance of providing marital education programs and services in order to improve health in prison, which will ultimately save on correctional health care spending. Policies such as the healthy marriage initiative were implemented due to the association between marital status and poverty (Johnson, 2012). Under this initiative, programs provide marriage education services where people can learn and obtain the skills necessary to have a healthy marriage. The Prevention and Relationship Enhancement Program (PREP) is one of the programs that emerged out of the healthy marriage initiative. PREP is a program which was designed to prevent the amount of

stress within marriages and divorce by teaching couple's communication skills and helping increase the level of support found within the relationship in order to create healthier relationships (Einhorn et al., 2008). Because previous research has failed to examine how marital education services specifically impact these relationships, PREP has recently been adapted to be used in relationships where one is incarcerated. The ultimate goal of PREP is to strengthen marriages. Strengthening marriages while one is incarcerated has been linked to decreases in recidivism (Einhorn et al., 2008; Theobald & Farrington, 2009), which in turn, leads to decreases in correctional spending. Thus future research should focus on evaluating more interventions such as PREP, which has been linked to strengthening marriages, improving marital quality, building social support, and decreasing the level of marital stress.

Conclusions

Little research has examined the effect marital status has on the health of men aging in prison. Hopefully, results obtained from the current study have sparked interest on this particular topic. If the aging prisoner population keeps increasing at its current rate, so will the cost to state departments of corrections, the federal bureau of prisons (Rikard & Rosenberg, 2007) as well as to the American people. Since this study and previous research has indicated that marriage affects health, more research needs to be done on finding the exact relation between health and marital status specifically in regards to the inmate population. It is also essential that investigators measure marital quality when determining this association as it may be a mediating or moderating variable. Finding results to support this association has the potential to implement more

marital education programs that could eventually lead to a decrease in correctional spending.

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Oklahoma State University Institutional Review Board
Request for Determination of Non-Human Subject or Non-Research

Federal regulations and OSU policy require IRB review of all research involving human subjects. Some categories of research are difficult to discern as to whether they qualify as human subject research. Therefore, the IRB has established policies and procedures to assist in this determination.

1. Principal Investigator Information

| | | |
|---|----------------------|-------------------------|
| First Name: LaShonda | Middle Initial: D | Last Name: Edwards |
| Department/Division: Department of Human Development and Family Science | | College: Human Sciences |
| Campus Address: | | Zip+4: |
| Campus Phone: | Fax: | Email: |
| Complete if PI does not have campus address: | | |
| Address: 1200 N. Perkins rd. #S9 | | City: Stillwater |
| State: OK | Zip: 74075 | Phone: (469) 688-6726 |

2. Faculty Advisor (complete if PI is a student, resident, or fellow) NA

| | | |
|---|-------------------|--------------------------------|
| Faculty Advisor's name: Dr. Alex Bishop | | Title: Professor |
| Department/Division: Department of Human Development and Family Science | | College: Human Sciences |
| Campus Address: 328A Human Sciences | | Zip+4: 74078-6112 |
| Campus Phone: 405-744-3989 | Fax: 405-744-6344 | Email: alex.bishop@okstate.edu |

3. Study Information:

- A. Title
The Benefits of Marriage on the Mental and Physical Health of Men Aging in Prison
- B. Give a brief summary of the project. (See instructions for guidance)
 Data for the study was previously obtained from the Oklahoma Aging Offenders Pilot Program, IRB#HE0657. The current study will involve a secondary analysis of quantitative data points. All identifiers have been previously removed. This study will have a two-fold purpose. First, this study will be used to examine whether marital status among older male prisoners enhances or impairs the presence of self reported health conditions. Second, this study will be used to determine whether married, formerly married, and divorced older prisoners who possess social support and maintain a disposition to forgive report more favorable health perceptions.

Request for Determination of Non-Human Subject or Non-Research

- C. Describe the subject population/type of data/specimens to be studied. (See instructions for guidance)
- This study involved the use of previously collected data from N = 261 male prisoners, aged 45 and older, incarcerated across 10 state-managed facilities in Oklahoma. Data collection was conducted in the summer of 2006. At the time, study participants were conveniently sampled from the Oklahoma Department of Corrections database. Inmates were notified about the pilot study through the use of an announcement that was approved by the Oklahoma State University Institutional Review Board (IRB). No participant received time credits or the opportunity for early parole from participation. Furthermore, no monetary compensation was provided for participation. The type of data that was collected was all self reported by the inmate and it included data reflecting their current age, race/ethnicity, education, and marital status, type of crime committed, recidivism, and time served. Measures were included to determine the ability to forgive, the amount of social support received, depressive affect, and self reported health. Data collection sessions were scheduled on predetermined dates proposed by the research team and approved by prison administration. Interested participants were instructed to voluntarily meet members of the research team in a designated prison visitation area. Data is currently being stored in a locked file cabinet. For the purposes of this study, confidentiality is maintained through the removal of all identifying information.

4. Determination of "Research".

45 CFR 46.102(d): *Research* means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy whether or not they are conducted or supported under a program which is considered research for other purposes.

One of the following must be "no" to qualify as "non-research":

- A. Will the data/specimen(s) be obtained in a systematic manner?
 No Yes
- B. Will the intent of the data/specimen collection be for the purpose of contributing to generalizable knowledge (the results (or conclusions) of the activity are intended to be extended beyond a single individual or an internal program, e.g., publications or presentations)?
 No Yes

5. Determination of "Human Subject".

45 CFR 46.102(f): *Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains: (1) data through intervention or interaction with the individual or (2) identifiable private information. Intervention includes both physical procedures by which data are gathered (for example venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject. Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

- A. Does the research involve obtaining information about living individuals?
 No Yes

If no, then research does not involve human subjects, no other information is required.

If yes, proceed to the following questions.

Request for Determination of Non-Human Subject or Non-Research

All of the following must be "no" to qualify as "non-human subject":

- B. Does the study involve intervention or interaction with a "human subject"?
 No Yes
- C. Does the study involve access to identifiable private information?
 No Yes
- D. Are data/specimens received by the Investigator with identifiable private information?
 No Yes
- E. Are the data/specimen(s) coded such that a link exists that could allow the data/specimen(s) to be re-identified?
 No Yes
If "Yes," is there a written agreement that prohibits the PI and his/her staff access to the link?
 No Yes

6. Signatures

Signature of PI *Leland Howard* Date 11/20/12

Signature of Faculty Advisor *[Signature]* Date 11/20/2012
(If PI is a student)

Based on the information provided, the OSU-Stillwater IRB has determined that this project **does not** qualify as human subject research as defined in 45 CFR 46.102(d) and (f) and **is not subject to oversight by the OSU IRB.**

Based on the information provided, the OSU-Stillwater IRB has determined that this research **does** qualify as human subject research and **submission of an application for review by the IRB is required.**

Shelia M. Kennison
Dr. Shelia Kennison, IRB Chair

11/21/12
Date

VITA

LaShonda Denise Edwards

Candidate for the Degree of

Master of Science

Thesis: THE BENEFITS OF MARRIAGE ON THE HEALTH OF MEN AGING IN PRISON

Major Field: Marriage and Family Therapy

Biographical:

Education:

Completed the requirements for the Master of Science in Human Development and Family Science specializing in Marriage and Family Therapy at Oklahoma State University, Stillwater, Oklahoma in May, 2013.

Completed the requirements for the Bachelor of Arts in Psychology at University of North Texas, Denton, TX in 2010.

Experience:

Interned at the Center for Family Services, August 2010- December 2012.

Provided therapeutic services to teenagers, children, adults, couples, and families.

Staffed clinical cases, participated in case audits, supervised cases, and teamed on cases.

Conducted infant parenting groups.

Coordinated with systems of care including the court system, schools, churches, as well as the Department of Human Services.

Interned at Youth Services of Tulsa, August 2011- December 2012.

Provided individual and family therapy to troubled adolescents.

Co-conducted a grief and loss group at Jenks Alternative Center.

Assisted with the Lesbian, Gay, Bisexual, and Transgender group.

Staffed cases and participated in case audits.

Professional Memberships:

American Association of Marriage and Family Therapy

Oklahoma Association of Marriage and Family Therapy